



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/619,917 | 07/20/2000 | Toshio Nomura | 49982(551) | 3874 |
| 21874 | 7590 | 03/09/2005 | EXAMINER | |
| EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205 | | | TRAN, NHAN T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2615 | |
| DATE MAILED: 03/09/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/619,917

Applicant(s)

NOMURA ET AL.

Examiner

Nhan T. Tran

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/7/2004 & 9/7/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/30/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/7/2004 and 9/7/2004 has been entered.

Specification

2. Substitution of specification and abstract, which is now in double space format, is acknowledged and accepted.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 9/30/2004 was filed after the mailing date of the Final Office Action on 6/7/2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Arguments

4. Applicant's arguments with respect to claims 1-3, 6-10 have been considered but are moot in view of the new ground of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 6, 7 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmad (US 6,532,022) in view of Parulski et al (US 5,914,748).

Regarding claim 1, Ahmad discloses an image pickup apparatus (Fig. 2) taking a first image including only a background (204) but not an object and a second image including the object (202), and having a shutter button for releasing a shutter (see Figs. 2 & 3; col. 6, line 37 – col. 7, line 47, wherein a shutter button is inherent, either located in the camera 200 or on computer 206, in order for the imaging apparatus to function as disclosed);

an output selecting portion (computer 206) outputting an image taken as *one of* the first and second images in a first time (steps 302-306; Fig. 3A) and outputting an image taken as the other of the first and second images in a second time after the first time (step 314; Fig. 3A),

Art Unit: 2615

wherein the first image is updated by using an image of a region other than the object region of the second image every time a prescribed period (feedback loop 302-306 shown in Fig. 3A) is elapsed. See col. 6, line 37 – col. 7, line 47. It should be noted that the background image 202 is updated by using other background image(s), which is/are clearly other than the object region of the second image, to obtain a final background image by averaging background images.

Ahmad does not specifically teach that a time measuring portion measuring a time after the shutter is pressed and that a first image is taken when a first period of time is measured and a second image is taken when a second period of time is measured. However, as taught by Parulski, in a compositing mode, an image of a background only and an image including the background and an object are taken separately and automatically after every 10 seconds *after the shutter button is pressed* (see Figs. 3B & 4B; col. 4, lines 50-55).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the imaging system in Ahmad in view of the teaching of Parulski such that the first image would be taken and outputted when a first period of time being measured by a time measuring portion, and the second image would be taken and outputted when a second period of time after the first period of time being measured by the time measuring portion so as to enable automatic capturing mode as an obvious variation of imaging configuration over a manual mode.

Regarding claim 2, Ahmad also discloses a region extracting portion (computer 206; Figs. 3B & 8A) using said first and second images for outputting information of an object region of said second image; and a recording portion (computer 206) recording data of positional information (location of each pixel) of said object region, and one of data representing said

Art Unit: 2615

second image and image data included in said object region onto a recording region. See col. 7, lines 41-47 and col. 10, lines 16-50.

Regarding claim 3, see the analysis of claim 2. Furthermore, Ahmad discloses that an image composing portion (computer 206) replaces an image in a region other than the object region of the second image with a prepared background image and recording portion recording data of the image composed by the image composing portion onto a recording medium of the computer 206 (see image 208 in Fig. 2; step 326; col. 8, lines 10-21).

Regarding claim 6, see the analysis of claims 2 & 3 and col. 6, line 37 – col. 7, line 47.

Regarding claim 7, although Parulski teaches that the first and second images are separately taken at predetermined time periods, Parulski and Ahmad do not explicitly teach a notifying portion notifying a timing at which pickup of the first image is finished and a timing at which pickup of the second image is started. An Official Notice is taken that it is well known in the art to include a notifying portion the notifying the timing of a picture-taking event, such as a red-flashing LED or a buzzer.

Therefore, it would have been obvious to one of ordinary skill in the art to include the notifying portion notifying a timing at which pickup of the first image would be finished and a timing at which pickup of said second image would be started so as to alert the user to the timing of the end of the first exposure and the beginning of the second exposure further allowing the user the chance to place the subject within the field of view of the image taking apparatus so as

Art Unit: 2615

to correctly obtain the combination of a first image with only a background and a second image with the background and a subject.

Regarding claim 10, see the analysis of claim 1.

6. Claims 8 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmad and Parulski et al as applied to claims 1-3 and in further view of Aono et al (US 5,267,333).

Regarding claims 8 & 9, Ahmad and Parulski are silent about recording image data in a compressed form. However, it is well known in the art that image data of background and foregrounds or objects are recorded in compressed form so as to reduce quantity of data used in image synthesis without impairing the quality of image as suggested by Aono, col. 3, lines 1-22.

Therefore, it would have been obvious to one of ordinary skill in the art to implement a compression engine in the combination of Ahmad and Parulski to compress image data before recording onto the recording portion so that quantity of data used in image synthesis would be reduced without impairing the quality of the image.

Conclusion


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

Art Unit: 2615

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Thai Tran can be reached on (703) 305-4725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.



THAI TRAN
PRIMARY EXAMINER